

| OPTIONAL INFORMATION            |                         |
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| Name of School:                 | Date of Inspection:     |
| Vocational Program/Course/Room: | Signature of Inspector: |

## COMPRESSED GASES SELF INSPECTION CHECKLIST

**Guidelines:** This checklist covers some of the regulations issued by the U.S. Department of Labor - OSHA under the General Industry standard 29 CFR 1910.101 which was adopted by reference. The checklist also covers regulations issued by the New Jersey Department of Community Affairs (NJDCA) under the Uniform Fire Code (N.J.A.C. 5:70-3.2). The Uniform Fire Code has adopted by reference the model code of the Building Officials and Code Administrators International, Inc. know as the "BOCA National Fire Prevention Code/1996." It applies to the handling, storage, and utilization of compressed gases in cylinders or portable tanks. **The questions which are most likely not the responsibility of the individual teacher are marked with an asterisk (\*).** Any question marked with the symbol (⊗) indicates a history of previous violations in vocational schools.

The OSHA standard adopts by reference the Compressed Gas Association's (CGA) Pamphlets C-6-1986 and C-8-1962. The following questions relate to the more common precautions to be taken in school environments. The checklist, however, should not be considered all inclusive. For further reference, please consult the Compressed Gas Association Pamphlet P-1-1965.

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| 1. Are all compressed gas cylinders regularly inspected for visual evidence of corrosion, pitting, cuts, gouges, digs, bulges, neck defects and general distortion? [29 CFR 1910.101(a)] | Y N N/A DK |
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2. Are all compressed gas cylinders regularly subjected to leak detection using an approved leak detecting liquid? [29 CFR 1910.101(a)] Y N N/A DK

Note: Ordinary soap solution may contain oils which can be unsafe when used with oxygen cylinders. Leak detection liquids are available from commercial welding supply houses.

3. Do all compressed gas cylinders have their contents and precautionary labeling clearly marked on their exteriors? [29 CFR 1910.101(b) and N.J.A.C. 5:70-3.2{BOCA F-2703.3}] Y N N/A DK
4. Are all compressed gas cylinder valve covers in place when cylinders are not in use? [29 CFR 1910.101(b)] Y N N/A DK
5. Is there an established policy regarding procedures to follow in the event of a compressed gas cylinder leak which cannot be remedied by simply tightening the valve? [CGA 3.1.6] Y N N/A DK

The procedures should include:

- a. Attach tag to the cylinder stating it is unserviceable.
- b. Remove cylinder to a well ventilated out of doors location.
- c. If the gas is flammable or toxic, place an appropriate sign at the cylinder warning of these hazards.
- d. Notify the gas supplier and follow his/her instructions as to the return of the cylinder.

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| 6.* | Are all compressed gas cylinders subjected to periodic hydrostatic testing and interior inspection? [29 CFR 1910.101(a)] | Y N N/A DK |
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Note: This is normally done by the supplier.

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| 7.  | Are all compressed gas cylinders stored so they do not interfere with egress? [29 CFR 1910.101(b)]  | Y N N/A DK |
| 8.  | Do all compressed gas cylinders have safety pressure relief valves? [29 CFR 1910.101(c)]  | Y N N/A DK |
| 9.  | Are students/employees prohibited from using compressed gases (air) to clean clothing or work surfaces? [29 CFR 1910.101(b)]  | Y N N/A DK |
| 10. | Are all compressed gas cylinder connections such as pressure regulators, manifolds, hoses, gages, and relief valves checked for integrity and tightness? [29 CFR 1910.101(a)] | Y N N/A DK |
| 11. | Are cylinders ever subjected to temperatures above 125 °F? [CGA 3.1.12]   | Y N N/A DK |

Note: A flame should never be permitted to come into contact with any part of a compressed gas cylinder.

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| 12. | Is there any indication of tampering with the safety relief devices in the valve or on the cylinder? [CGA 3.1.14] | Y N N/A DK |
| 13. | Is repair or alteration to the cylinder, valve or safety relief devices prohibited? [CGA 3.1.15]                  | Y N N/A DK |
| 14. | Are cylinder valves closed at all times, except when the valve is in active use? [CGA 3.1.15]                     | Y N N/A DK |

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15. Is painting cylinders without authorization by the owner prohibited? [CGA 3.1.20] Y N N/A DK

16. Are compressed gas cylinders always moved, even short distances, by use of a suitable hand truck? [CGA 3.2.6] Y N N/A DK

Note: They must never be slid or dragged across the floor.

17. Is the storage area permanently posted with the names of the gases stored in the cylinders? [CGA 3.3.2 and 29 CFR 1910.101(b)] Y N N/A DK

18. Where gases of different types are stored together, are they segregated to separate flammable gases from oxidizing gases? [CGA 3.3.3] Y N N/A DK

Note: Acetylene and propane cylinders should be separated from oxygen cylinders when not in use.

19. Are charged or full cylinders separated in storage from empty cylinders and labeled as such? [CGA 3.3.4 and 29 CFR 1910.101(b)] Y N N/A DK

20. Are storage rooms dry, cool and well ventilated? [CGA 3.3.5] Y N N/A DK

Note: The storage rooms should be fire-resistant, the storage should not be in sub-surface locations. Cylinders should not be stored at temperatures above 125 °F. nor near radiators or other sources of heat.

21. Is the storage of cylinders near highly flammable substances such as oil, gasoline, or waste prohibited? [CGA 3.3.6] Y N N/A DK

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22. Are cylinders stored where they are not exposed to incompatibles, excessive heat, continuous dampness, near salt or other corrosive chemicals and areas which may subject them to physical damage? [CGA 3.3.7 and 29 CFR 1910.101(b)] Y N N/A DK

Note: Rusting will damage the cylinder and may cause the valve protection cap to stick.

23. Is the bottom of the cylinder protected from the ground to prevent rusting? [CGA 3.3.9] Y N N/A DK

24. Are compressed gases only handled by experienced and properly trained people? [CGA 3.4.1] Y N N/A DK

- 25.⊗ Are cylinders stored in upright positions and immobilized by chains or other means to prevent them from being knocked over? [CGA 3.4.4; 29 CFR 1910.101(b); and N.J.A.C. 5:70-3.2 {BOCA F-2703.4}] Y N N/A DK

26. Are suitable pressure regulating devices in use in all cases where the gas is emitted to systems having pressure rated limitations lower than the cylinder pressure? [CGA 3.4.5] Y N N/A DK

27. Is the use of wrenches or other tools not approved by the manufacturer prohibited for opening and closing valves? [CGA 3.4.9] Y N N/A DK

Note: Hammering on valve wheels in order to attempt to open them should be strictly prohibited. For valves that are hard to open, contact the supplier for instruction.

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28. Is storage of cylinders near flammable solvents, combustible waste material and similar substances or near electrical connections, gas flames or other sources of ignition prohibited? [CGA 3.5.1] Y N N/A DK

29. Is the use of a flame to detect flammable gas leaks prohibited? [CGA 3.5.2] Y N N/A DK

Note: Use an approved leak detection liquid.

30. Are oxygen and fuel gas cylinders separated by a minimum of 20 feet when in storage? [CGA 3.5.3] Y N N/A DK

Note: An alternative would be the use of a fire resistant partition between the cylinders.

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Sources of Additional Information:

*Handbook of Compressed Gases*, Compressed Gas Association, Arlington, VA, latest edition.

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